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**Diffraction grating pattern for credit card, has cells formed proportionally to pattern obtained by Fourier transformation of specific image**

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**Novelty:** The pattern has cell formed by the lattice structure, so that the size of each cell is equal to or less than 100  $\mu\text{m}$  and the area of each cell is proportional to a pattern obtained by the Fourier transformation of a specific image. The phase difference between the cell obtained by the grating pattern and that obtained by the Fourier transformation is  $\pi/2$ .

**Use:** For e.g. hologram for credit card, security document, for forgery prevention effect.

**Advantage:** Improves forgery prevention effect by preventing generation of image under normal observation conditions in white light. Enables to reproduce a real image pattern only upon illumination with a laser beam.

**Description of Drawing(s):** The figure shows an explanatory diagram of diffraction grating pattern. (Drawing includes non-English language text).

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各セルの回折格子

